ter, but even here breed influences more than

8. That the casein retains a constant per-

9. That the casein appears to remain con-

12. That the best practice of feeding is to

character of the animals fed; feeding superior cows nearer to the limit of their produc-

tion than inferior cows; feeding, if for butter, more concentrated and nutritious

foods than for cheese; feeding for cheese product succulent material which will in-crease the quantity of the milk yield.

The propositions contained in the first six.

and the 10th, 11th and 12th of the above

rules, coincide with the suggestions of the

experience of most dairymen of ordinary

good sense and perception who regard the

matter of increasing the product per cow as

not beneath their consideration. They are

simply common sense rules, enunciated in

the chaste, artistic phraseology peculiar to

But if insufficient feed "has a tendency to

lecrease the casein of the milk and substi-

tute albumen," as we doubt not it has, then

it would appear that the casein has not "a

constant percentage," as stated in the eighth.

Cure for Bloating.

In the care of a well fed dairy it has been

found necessary to doctor some cows for hoven or bloating, caused by eating largely

of succulent green clover. The remedy that

is sure every time is composed of one table-

spoonful of cayeane pepper, three tablespoon

fuls ginger, half a pint of molasses and a quart of water. These ingredients shaken

together and poured down the cow's throat

have speedily relieved the most desperate

in which after receiving the dose they soon

regained their appetite, usual condition and

flow of milk. This is the remedy used here

general health of horses, such as colds, colie

[We have never used the above remedy,

It is probably good ; can do no harm. Char-

Deep and Shallow Setting.

EDITOR VERMONT FARMER :- What is the

theory and practice in Vermont as to set-

ting milk, deep or shallow, for butter-mak-

ing? The results of recent experiments,

York dairyman's association, show that deep

setting yields more butter, than shallow

made under the direction of the western New

oss of appetite and fever .- Exchange.

regulate the character of the food by

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Hiply the number of inches space by the name I divide by four to find the cost in dollars.

Hedges, so popular as tences a few years ago, are found to cost more than poet and board fence. It costs more to keep them in repair, and they occupy much land and are not thought so desirable as formerly,

The type made us say, in speaking of Mr Hill's lamb, that certain rams were bred by Robert Game-should be Robert Garne. (Will the ram lamb please excuse the

Mr Hill has a very fine flock of Cotswolds. We have seen them at the fairs many

The Live Stock Journal says inventors have given up the attempt to perfect a selfbinder with wire, because the wire cannot afterward be separated from the straw, and is likely to be swallowed by the stock. We notice, however, from the reports of the New York state fair that Walter A. Wood exhibited his self-binder which uses wire.

hold a meeting at Canaan, December 7th and 8th, in which the New Hampshire board will join. On the 9th the members of the Vermont board will participate in the meeting of the New Hampshire board at North Stratford. This interchange of courtesies will be productive of good as well as of processes of manufacture. Mr Ellsworth has pleasant memories.

The members of the Vermont board have no authority to act for, or at the expense of no authority to act for, or at the expense of the information which is published the state, at a meeting out of the state, and for the benefit of all. Mr Ellsworth has will attend the North Stratford meeting at their own expense,

Mr McKeen, our South Acworth, N. H., correspondent says in a private letter he "is purpose to try summer heating. inclined to think that breeding fancy poultry pays better than fancy cattle, horses and constituting two and one-half per cent of the rate for his milk as the present year. We fat pork sometimes.] for starting and for care, and the returns whey in making cheese. are speedy. The buyers are more numerous than for animals which sell for several hundred or thousand dollars each, and the risk is small. Common poultry of good kinds, when well cared for pays well. A neighbor once informed us that his daughter had in a few years, sold four thousand dollars worth of dressed poultry, and that it was, except the care, nearly all profit.

The selection of well bred males those that possess and are capable of transmitting desired qualities is so generally disregarded that the regulation of the matter by legal enactment, though essentially arbitrary, would be productive of good results. In Prussia the government has given especial attention to the improvement milking, which includes the milk of twenty of horses, having stations where stallions cows belonging to a neighbor which Mr Elle are kept whose services can be had for moderate fees. The result has been very beneficial, affording cavalry horses for the army at remunerative prices to farmers. In 1844 outside the building, which consists of the government of Hanover issued an ordinance that thereafter only such stallions owned The water as heated rises to the milk pan, by private individuals should be used as were and as it cools falls again to the fire. approved by a government commission consisting of land owners, one cavalry officer and one veterinary surgeon. The system was attended with marked success in improving the horses of the country.

Scientific enquiry and research are bringing valuable results to the fund of knowledge available to farmers, and the obligation of farmers to scientific men can be acknowledged in the best and most gratifying twenty-four to forty-eight hours, and would way by making intelligent use of the fruits keep longer if desirable. During the sumof their labor. At the same time it canuot mer, when the yield was greatest, the milk be advised to give an unquestioning acceptance to everything offered in the name of science for that would sometimes place us in the position of the professor of a certain butter and good cheese from his forty-cow agricultural college, who, having more zeal than sound judgment, was gulled by some smart seniors with the story that a certain milk is at all times perfectly sweet and river contained fish with heads on each end! sound. On the morning of the day we were giving a plausible, scientific reason for the there the cream from the previous day's milk double headers, which they had evolved from the immost recesses of their demoniacal imaginations. The enthusiastic dupe vat. awallowed the bait and repeated the hash to his class next day.

The teachings of science are sometimes interpreted by men suffering from a short supply of common sense.

The Dutch inlet Zuyder-Zee, containing 481,864 acres, is to be reclaimed from the ocean. An immense dike twenty-five miles long and twenty-three feet above the water, costing \$10,500,000, is to be built and the whole cost is estimated at \$87,000,000. The average depth of water is fourteen and one-half feet, which is to be pumped out by steam. Two hundred dollars an acre is con- ter figures on his books than are usually sidered a low estimate of the saleable value found where only one is made, it seems to of the reclaimed land, which would give a surplus to the government, above cost, of \$200,000,000. It will take fifteen or twenty year, at forty-five cents per pound to sell years for the job, and we wish our Datch again, and the choose has been sold as fast

should set about lifting farms up bodily from the depths of the sea? If a farmer factories where only whole milk is used. cow may be casely fed beyond her limit, and undertakes to practice thorough culture Mr Ellsworth's price is, however, not strictly as a practical conclusion, increased feed with

already in sight is thought a waste of money ; the idea of fishing up those out of sight under fourteen feet of salt water is too costly to be thought of. But "those Dutch" will do the thing and make money thereby.

The Argus, in its report of the meeting of the board of agriculture, mentions the fact that the care of reporting the meetings of the board for the press of the state, was making that paper more especially than before the official organ of the board."

Those who read the VERMONT FAAMER do not need to be informed that it is not, and will not be, the official organ of any board or individual except of those who make it, and of the farmers for whom it is made.

The matter of furnishing reports of the pecedings of all the meetings to all the papers in the state, so that all the people can have some benefit from the meetings and an opportunity to judge for themselves whether the work of the board of agriculture is of any value, was probably committed to Mr Hubbard for the reason that he originated and introduced the measure and submitted a plan by which it is likely to be carried out with no expense to the state beyond the cost of reporting the papers and discussions and the postage on slips to the press of the state.

Profit in Dairying Reduced to a Certainty.

While the dairymen of the country are nourning over the low prices of butter and cheese, the patrons of cheese dairies realizng barely one cent a pound for their milk. and the leading writers wrangling over the use of oleomargarine in connection with skim-milk The Vermont Board of Agriculture will for the manufacture of cheese, a quiet unassuming farmer of Barre, Massachusetts, well known in Vermont through his visits to several meetings of the Vermont Dairymen's Association, Mr John T. Ellsworth, has been utilizing the knowledge disseminated at the various daiymen's meetings in perfecting his been for years a successful dairyman and farmer. His good sense and practical knowledge enables him to make intelligent for several years been in the habit of scaldhis milk in winter, as he stated at Montnelier, last winter, and he then expressed the

Reading farmers know that only the oil, As for pork, he can buy a hundred thirteen per cent of solid matter of milk is hope at the close of the year he will furnish pounds of it with two turkeys." We have utilized in making butter, and that frequently no doubt of it. Little capital is required a lare per cent of the cream escapes in the

Mr Arnold's statement last winter that the skim-milk annually wasted in the country would, if properly handled, pay the interest on the national debt, set Mr Elsworth to thinking, and he resolved to make an effort to save a part of this waste. The dairymen of the country are under obligation to him for the experiments he has made.

The editor of the New England Farmer visited Mr Ellsworth at his farm to ascertain the results attained, which he gives in that paper, October 30th, of which we make the following abstract:

Mr Ellsworth milks twenty cows, which un in the pasture night and day. The milk is strained through a wire cloth strainer, then through two thicknesses of cottea cloth, into Empire state pans large enough for all of a

worth manufactures with his own. After straining the milk the temperature is raised to 130 degrees by means of hot water run into the lower pan from a heater large cylindrical stove containing a coil of As soon as the milk is scalded the hot water is turned off and cold water turned on This is pumped from a deep well into a tank

in the upper part of the milk. About fifty gallons of water are required for cooling the tank of milk down to about seventy degrees By this system of handling milk, there is no such thing as "bad luck," or bad weather, known in the dairy room, just as good butter having been made all through the past summer in the hottest weather as in June or September, and the milk has kept sweet from was kept in the pans but one day; later in the season, half of it is kept two days before

using it for cheese-making.

Mr Elisworth has been able to make good dairy the past summer, every day, thus far, regardless of heat, cold and thunder, and he attributed his success to the fact that his was churned and the buttermilk, which was as sweet as the hour it was milked, was mingled with the other milk in the choese

Mr Ellsworth would prefer to churn cream slightly acid for making butter for long keeping, but as his is consumed frosh each week and the buttermilk is very valuable in the cheese vat, he churns his cream while it perfectly sweet. Great care is needed handling skimmed milk during the process of cheese making, that none of the cream shall be wasted, and if when the cheese is finished t contains as much cream as whole milk ese improperly handled, as much of it does, then the former should be equal to the latter. We are peither an expert nor a con noisseur in a cheese room, but when we state the fact that Mr Ellsworth has made butter and cheese, both from the same milk, and both of such a quality that he can show bet "proof of the pudding," etc. The butter is all sold in Worcester to one man, by the as cured to the grocers in the same city, at prices ranging from ten to twelve cents per pound, mostly at the latter price. This is about the wholesale price at most of the

"right up to the handle," he is looked upon a wholesale but rather a jobber's price, as a superior lot of sows will increase the butter he solls to those who usually purchase of the product; but if fed to an inferior lot of cows, wholesale buyer. That his cheese is at least waste on only be the result. a fair article is evident from the fact that his trade is increasing, and that every sale makes the next one easier and larger.

The object sought by Mr Elisworth has food.

been to keep his milk so sweet up to the time 7. That there is no constant relation it is skimmed that it may be worked up into between the butter product and the cheese new milk practiced at cheese factories, and his success in this direction has been wonderful, and has exceeded his most sanguine expectations. Every dairyman knows that

9. That the casein appears to remain ilk will sometimes keep sweet several days stant, without regard to the season. committed to the agricultural editor of the in cool weather, but every one does not be- 10. That increase in the quantity of milk Farmer, and says it "of course looks towards lieve that it can be kept sweet for an indefi- is followed by an increase in the total amount nite length of time, even in hot weather, if of casein it is kept sufficiently cool. Such, however, is 11. That insufficient feed acts directly to the fact, provided the milk is pure and sound check the proportion of butter, and has a at the start. The object sought in scalding tendency to decrease the casein of the milk milk in bot weather, as practiced here, has and substitute albumen. been to render the milk sound and free from all tendency either to sour or taint under a

temperature suitable for raising the gream.

Just how scaliding affects the keeping qualat this time to discuss. Our object in visit-ing this dairy was to obtain facts for the ben-efit of our readers, and if we are not mistaken the experiments carried on here the present

men of New England. According to the best estimates, eight or nine millions of cows are kept in the United States for the production of butter alone, yielding annually fourteen hundred million This butter contains only one-fifth of the solid matter of the milk, leaving all the caseine and milk sugar to be wasted, unless it can be utilized as food for swine or other animals. How well this is utilized in pork making, those can best judge who have fat- Dr Sturtevant. ted hogs on milk and meal, and have been able to realize only barely enough to pay for the meal and the first cost of the pigs, which is very often the case as thousands can tes-

In Mr Ellsworth's dairy all the cream that might rau off in the whey during the cheesesides, is secured for butter-making. The remaining cream, together with the easeine, which in quantity is nearly twice as great as man consumption, still leaving in the whey an amount of sugar equal to the caseine, and which is a valuable food for swine, if fed while fresh and sweet, as it usually is during the first twelve hours after it leaves the vats. We were hardly prepared to believe that we saw in Mr Ellsworth's pens. They were not as large of their age as we have seen fattened upon milk and meal, but they were in good condition for the butcher, and were apparently happy and contented. They are for allments of different kinds that affect the ed about five times per day as much as they will eat, and the whey is always given freshly made and comparatively sweet. The book had not been closed up for the season at the time of our visit and we could not see the balance sheet, but Mr Ellsworth is perfectly coal is useful. Soft soap (one pint) and milk satisfied that he has never received so high a (one quart) is usually effectual. So is salt a full statement of the year's doings for pub

lication in our columns. The only figures we took at the time were the following: September 26 and 27, whole amount of milk 1,360 lbs; 36 cows in milk; milk skimmed at 12, 24, 36, and 48 hours : on the morning of the 28th cream churned milk and skim-milk made into three cheeses weighing in the aggregate 125 lbs from the press, equal to about 119 lbs of cured cheese according to the prices thus far received for beese, the whole product of the 1,360 lbs of milk would be at least \$33, or more than five cents per quart. If our figures are wrong, Mr Ellsworth will please correct.

The Vermont cheese factory companies, as far as we learned, while on our late visit to Addison county, return their patrons only about 2.15 cents per quart, or one cent per pound for the milk delivered at the factory

twice a day. Of course there has been a good deal of expense incurred in fitting up the rooms, and making the various experiments required o bring the business to its present condition, but certainly this first year's experien would seem to indicate that American dairy. men have as yet hardly learned the a, b, o,'s of the best methods of economizing the products of the dairy cow.

Prizes for Cats.

The seventh annual cat show at Crystal palace, Sydenham, Eng., recently, was a emarkable success, 213 animals being exhibited. About 180 prizes were offered for competition, from five pounds to fifteen shillings, while marks of distinction, which are equally coveted, such as "very highly comnended," were also awarded. The best tabby-cat received a silver cup. For this prize there was a general rivalry; there were thirty-six candidates, and, as they were not made until after much discussion. The prize-man at last appeared in Master Shuckard's "Tommy Dodd," aged nine years, and valued at £100; the winner of the second prize was also held at the same amount, while the value attached to others in the same class was never below £5. Miss Shorthouse's cat, "age unknown, possesses a tabular pedigree for six generations," and is valued by its owner at £10,000, but, in face of these substantial arguments, Miss S.'s favorite was not among the prizes, only

receiving a high "commendation." If farmers would show as much interest in the work of improving their cattle, sheep and horses as fanciers do in the improvement of dogs, cats and pigeons, the resulting increase in the value of the farm stock of this country in five years would exceed a hundred million dollars. Who doubts it may compute how much that would be per head.

Feeding for Butter and Cheese.

Dr E. S. Sturtevant recently made to the Connecticut Board of Agriculture a report on the above subject, in which he gives summary of his conclusions as follows: 1. That the production of butter is largely

dependent on the breed. 2. That there is a structural limit production of butter to each cow. 3. That when the cow is fed to this limit

increased food cannot increase the product 4. That the superior cow has this structural limit at a greater distance from ordi nary food, and more ready to respond stimuli, than the inferior cow. 5. That consequently the superior

Mesers Martin Bailey and O. C. Blodgett, two of the best butter-makers lu Chantanqua county, were chosen to oppose Mr L. S Hardin of Louisville, Ky. They divided the night's milk of fifteen native cows, 185 pounds. The New York gentleman used shallow pans, and made a

pound of butter from 21.53 pounds of milk. Mr Hardin, with deep pans, made his pound of butter from 21.51 pounds of milk, set at a temperature of thirty-eight degrees. Mr Hardin also made a trial with a Mr Reeder, using Jersey milk, with the follow-

ing results: Set in Mr Reeder's shallow pans, a fraction over 19 pounds of milk was remade a pound of butter. At the St Louis fair, recently held, Mr

Hardin made an experiment with a Mr D. required 22.02 pounds of milk for a pound at a temperature of forty-two degrees.

Mr Douglass is described as one of the and keeping them at a uniform temperature as follows, in a recent issue : all first-class, the decision of the judges was of sixty degrees. Half his herd are fullblood and grade Jerseys. His butter sells in St Louis at the highest prices.

The practice is almost invariably shallow etting. Not the old-fashioued kind of shallow setting, two and a half inches deep, but what is, at the present time, termed shallow setting, viz, five to eight inches.

The opinions of nearly all the writers and dairymen concur in favor of shallow setting. stands the action of milk under all A few parties practice deep setting, and champion its advantages with enthusiasm. The discussion of the relative merits of the two systems has unfortunately in some instances degenerated into personal controversy, and a personal victory appears to have become more desirable than the discovery of

It may be regarded as certain that reliable data in dairy matters can only be obtained by a careful series of experiments conducted with untiring patience, by unbiased milk into two equal parts and set one shalforty, and those set in pairs, each pair at a different depth or temperature.]

Nearly one-half, by weight, of all dried

For the VERMONT PARMER. Coloring Butter.

It is well known among dairymen that s desirable and uniform color for butter is a matter of considerable importance, and that a failure from any cause in this direction produces dissatisfaction among buyers and a consequent loss to the producer of a poorly or unevenly colored article, usually of about five cents per pound.

The most desirable shade to be obtained of course, is as near that produced by good summer pasturage, as possible. As the grasses fail in autumn this rich, golden coloring diminishes in its intensity, and from this time until the following June, it is found necessary on most farms to employ artificial coloring matter, of some description, in order to obtain the desired shade,

Formerly, and at the present time, butter carrots are used to some extent for this purpose, many farmers believing that nothing else is quite as good, either to give the real golden color, and as they claim a "grass flavor." The first is, or can be, if properly used, almost an exact imitation ; the last is probably largely fancied and some claim is sental to the flavor of butter, injuring

its keeping qualities. The raising and using of carrots for this purpose is attended with a good deal of labor and trouble, so much so as to induce many to use home made preparations of annatto. instead. If properly prepared, a tolerably good color is imparted to the butter, but more generally a dull, reddish tinge is given, the result of imperfect preparation, or of using too much. To do away with the greater labor and cost of using carrots, and also to secure a better and more uniform article than the annatto prepared at home, upon the farm several preparations of annateine have been put upon the market ready for use and offered at reasonable rates. Most of these are very good for the pur-

too much is used, a reddish tinge is imparted instead of a golden or orange as desired. I have been using for some time the golden extract," a proparation put up for the purpose, by Wells, Richardson & Co, of Burlington, this state, and find it to possess these important advantages over most others now in use. It takes a less quantity to produce the required color than any other kinds tested, the amount needed being very small and yet, with this small amount, as the name indicates, a golden color is imparted to the butter and free from any reddish cast whatever. There is little of taste or smell case of 1872. In the first place, the present dis-

pose, but one great difficulty is, if a little

introducing it throughout the country as in 1872. Sd. The first symptoms of the fast as possible, and are meeting with the most flattering success, receiving the commendation of individuals using it, and the highest awards at agricultural fairs wherever exhibited. From my experience with the "golden extract," I can cheerfully recommend it as a most desirable article for the purpose, and worthy of general use.

FRANKLIN CO DAIRYMAN. [The above is from a reliable dairyman and agricultural writer, and is undoubtedly worthy of full credence. It will be remem bered that Mr Arnold gives the opinion that carrots do affect the keeping quality of butter by their decomposition.

We have a package of the "golden ex tract from Messrs Wells, Richardson & Co, and intend to have it tested as soon as the color of butter is affected by the quality of

Heating Milk.

We have alluded to what seemed to quired to make a pound of butter; set in the undue haste of agricultural writers in Mr Hardin's deep pans, 17 pounds of milk condemning Prof Arnold for his statements concerning heating milk, based upon the unfavorable result of a single experiment at the Elgin factory. The account of Mr Douglass of Penely, Mo. The shallow pans | Ellsworth's dairy, which we copy in another column from the New England Farmer of butter; the deep pans required 20.85, shows that the system of heating to 180 degrees, even in summer, is not necessarily attended with disappointment. Prof E. W. most successful dairymen in the South. His Stewart, editor of the Live Stock Journal mitk-house cost \$2,000. He uses long pans one of the most thorough and careful experiwith cold spring water running under them menters in the country, takes up the subject

This mode of preserving milk from decay has received much discussion during the last two years, and Prof Arnold's experiment at the Elgin butter factory, last spring, seems to have stirred up a very unnecessary excitement in that region. We do not see any occasion for excitement on the part of Elgin dairymen because Mr Arnold found a vat of cord. After detailing the action of the intainted milk there, or for impugning his judgment because the heating process, in that particular instance, did not work as circumstances, and the effect of heating this position in the portion of milk heated than that not heated, should be regarded as a interesting experiment, indicating the degree of heat that fungus germs can stand at a certain stage of development, as showing a new phase, and not as overthrowing the position that heating milk, under ordinary circumstances, tends to preserve it from the development of fungus gorms. Many comments have been made upon this experiment which showed that the writers took its result as overthrowing the position that heating tends to preserve milk from decay, and that experimenters, with every other condition pre- that position of Prof Arnold's was merely eisely identical, and with every possible vari-ation. It is not enough to divide a mess of writers would do well to test the matter by experiment, for themselves, before they toot milk into two equal parts and set one shal-low, the other deep, at different tempera-We tested this matter by three experiments tures. The milk must be held at the same in 1872, and by a like number in 1873. In temperature, and, what is more, different July and August, at times when the state of temporatures, and perhaps other differences in condition, must be tested. It may be that deep setting requires a different temperature from twenty-five cows, which had first been from shallow. Then a mess of milk must all thoroughly mixed together in a tin vat be divided into four or more parts, perhaps and then dipped into common pans and set upon racks. These three pans were heated to 130 degrees, and then returned to the cate rain.

same place upon the rack again, being pre-

cisely the same in all respects as the pans

surrounding them, except the heating.

remained sweet twenty-four hours longer similar trials of night's milk, and in every instance save one the heated milk remained sweet from twelve to twenty-eight hours longer than that unheated; and in that case the milk was heated only to 120 degrees, and this seemed insufficient to kill the fungua germs. We have heated milk to 160 degrees without any apparent injury; and we think it highly probable that 160 degrees would have produced a different result with the vat of milk at Elgin. This matter of heating milk requires further careful experi ment to determine the exact degree required to kill the fungus germs under a variety of circumstances. We not only found heating to preserve the milk from decay, but the eream from same depth of milk was uniformly much thicker and solider than on that unheated. We have practiced heating milk to 130 degrees during the winter season for many years. In this case it was done to litate the rising of the cream, and also to give a deeper color to the butter. We have long regarded heating as an important means of neutralizing taints, of postponing souring and causing a more perfect separation of the ream from the casein; and to this we have scribed the better keeping qualities of the butter, besides five to ten per cent gain in yield of butter. Some writers have treated this heating of milk as a new theory and practice, while it is old, has been practiced or more than a century in England, and in this country as long as we can remember, in many dairies. It is only of late that its

The Horse Disease.

advancement of knowledge.

want to know is its effect under a variety of

circumstances; and every careful experiment

tried should be regarded as a step in the

The veterinary editor of the Live Stock Journal is of the opinion that the "epizootic" now prevailing among the horses is the same as that of three years ago. He warns owners against over-working and exposure, Here is what he says:

The disease which prevails among our erious character than was at first antici pated. The first symptoms were of so mild a nature as to cause little or no apprehension of any danger from the disease in a later stage, for a great many horses in this vicinity which have had the usual symptoms (cough) are apparently in good health and performing their daily work. There is, ho large number wholly unfit for use, it having assumed a much more dangerous form Horses which apparently had entirely recovered from the former symptoms are now stricken down with pleurisy. lief of many horsemon that the present case is a mild type of the epizoötic of 1872, In my diagnosis of the present disease I find few symptoms which are similar to the disto be distinguished in the article, which appears to be very pure, mild and yet of unmany horses which have not yet been affected. From the disease of 1872 none escaped. Ed. Mules are not troubled with present disease are a hacking cough, with little or no discharge from the nostrils. 1872 the first symptoms were a copious discharge of mucus, of a greenish hue, from both nostrils, with inflammation of the eyes, which also discharged a watery mucus, general inflammation of the head, more or lessoreness of the throat, and in many cases in difficulty in swallowing, with loss of appetite, neing in the feet and extending upward loward the belly; also at the nose and exnding back over the face. In the former isease the swellings were dropsical and the

etc. 4th. In severe attacks of the present disease its last symptoms are swellings or deposits of lymph in the extremities, com deposits scrum, commencing on the belly and extending downward toward the feet 5th. The present disease has no particular time of its appearance among our horses. nor has it shown any symptoms of abating. lorses have been brought to my infirmary to be treated for cough for over a month. The former disease first made its appearance in this city, at Dr Carey's stables, on the 14th of October, and remained about three

demic influenza, affecting the larnyx first and when the animal is not taken and kept warm, the lungs and chest become the principal seats of the disease. The disease is now assuming a very serious charac-Too many horses which were consid ered well and cured are now attacked pleuro-pneumonia. Horses which are com-pelled to do so much work, daily, and in all inds of weather, suffer most. car horses are suffering severely from pleurisy, and so many of them are sick that the full number of cars cannot be run.

A Batch of Weather Signs.

In response to a circular sent to all the station observers by the chief signal officer asking for the signs preceding storms, Signal Service Observer Dumont has recently sent Washington a report for this locality based upon his own observations, and the weather notes which Maj Ingersoll has kept for several years, and Foreman Allin's re struments before storms, the report gives the weather signs by which the approach of a fessor Johnson estimates soluble phosphoric considered more reliable than the mental signs. Old weather prophets will be interested in comparing these rules with the particular vat, producing more rapid decom- maxims which they have drawn from their own observations. We append the signs :-1-As a rule, if the wind touches northeast or east for two or three days, it is a sure indication of rain. 2-Dense smoke and haze in early morning portend falling weather.

8-Summer showers of light 4-Fog, frost and dew precede rain 24

to 48 hours, except fog at close of storm. south and southeast precedes falling weather. fined and brilliant auroras, precede rain 24 7-Barometer rising or falling consider-

ably away from its mean forebodes falling weather, subject to modifying influences of the neighboring ranges of mountains and 8-Precipitation generally follows a rapid influx or reflux of atmosphere.

9-If wind is in southwest and rain sets

in, the rain is of short duration and light

Fort Monroe and running up the coast surely

A Newsy Letter from France. A correspondent of the New England Farmer writing from France, touches a variety of interesting topies. Among others we quote as follows :

It is no secret that many landed propries-tors in France have well nigh ruined them-selves by the rearing of stock and the pro-duction of root crops, and now adopt, since some ten years, a plan of cultivation which dispenses with farm-yard manure, cattle, servants, etc. It consists in the adoption of a rotation, comprising, first year, wheat, sec-ond year, oats, each manured with super-phosphate of lime, and sulphate of ammonia at the rate of six owt of the former, and seventy pounds of the latter per acre, for the wheat, and about half these quantities for the succeeding out crop. The third year the tard, ploughed down green; fourth year wheat unmanured. The average total expenses over the four years amounted to something better than one-half the produce for the three years, and yielded a net profit of fifty france per sere. If this system spreads, the conditions of agricultural work and the situation of the rural classes will be sensibly modified.

Professor Waltny of Munich has made series of analyses of potatoes to test their richness in fecula, and has found that the latter increases with the size and weight of the tubers, the difference being as much as two per cent between large and average sized potatoes. For purposes of distillation he therefore recommends large, and for feed-ing, smaller tubers, the latter containing more mirrogen. For the same reason he suggests, that for seed, cuttings should be preferred of the large potatoes, as germination requires

M. Faucoo, the author of autumnal sub mersion of vineyards for six weeks or two months, as a perfect cure for the phylloxera and the only one up to the present found to be successful, has this season been rewarded by a yield of wine double that produced in the bug, while those of his neighbors, where the inundation scheme is not employed, are nearly destroyed.

Foot and mouth disease is treated as follows: When the animal is attacked, it is separated from the herd, covered with sack ing and deprived of food for two days. The two principal points to be kept in view are, to calm external irritation, by means of nitre and tannin solutions, and to fight the fever, by purging the blood of the poison introduced therein. Towards the afternoon of the second day, the animal is adminis tered, by means of a horn or bottle, a linseed or meal drink, and next day some slices of beet and the leaves of that plant. In the case of milch cows the udder should be fomented every second hour with the tannic acid lotion, bathing the teats to draw off the milk, and thus prevent inflammation. The thrown away, as if given to pigs it would prove contagious.

An excellent means to preserve harness

and indeed all kinds of leather trappings from the injurious effects of the amm stables is to add a little glycerine grease ordinarily employed.

days, they ought to be placed in a wooden cage two feet above the soil, the bottom o the cage to be strewn with wood ashes daily the food should consist of rice boiled i skimmed milk, adding a spoonful of carbon ate of soda; the poultry ought to receive also pure water twice a day, and, like the food, in earthen vessels. The chief object is to maintain great cleanliness, and to avoid the presence of any acid. The flesh of fowls thus fatted is highly praised.

What Agricultural Papers are For.

The following from the Springfield Re publican, on the newspaper, is, with the

to the agricultural paper : What is an agricultural paper for? tainly not to relieve people from the trouble of thinking and acting for themselves. The proper business of an agricultural paper, as we understand matter, is to suggest; to point out; to exhort with all long-suffering and patience; to All the while, and above everything else, to print the agricultural news, and to do this in such an intelligent and intelligible way that the narrative of to-day's events shall illuminate the duties of to-morrow.

Waste of Pig Manure.

It is not an easy matter to save all the manure from pigs. I have allowed for a loss of seven per cent ; on many farms, I presume, a loss of seventy per cent would be nearer the truth. The food of cows and sheep contains a large proportion of woody fiber. This is voided in the freces. But the food of pigs contains very little woody fiber; nearly the whole of the food is digested, and consequently we get a small amount of solid faces and a very large proportion of liquid manure. Now, a pound of nitrogen in urine is worth more than a pound of nitrogen in the crude, undigested matter found in the fisces. And this is true to a still greater extent in regard to phosphoric acid. acid at sixteen and a quarter cents per pound. and insoluble acid at six cents. The gen and phosphoric acid in the manure from pigs, therefore, is usually worth much more than that in the manure of cattle, sheep and horses. It is worth, probably, about as much as that found in hen manure. In the hen manure, however, it is an easy matter to prevent loss, but in pig manure there is so much water that it is necessary to take special pains to prevent its running to waste. The urine of pigs will be found a very active and powerful manure .- Cor Western Rural.

Erizoöric,-In 1872 1 had a very large 48 hours, except fog at close of storm.

5—Wind veering from north or west to of epizocitic in Chicago, Madison, and other in one 86-and nearly all were blistered in a most fearful and horrible manner, without in the least checking it or helping the patient, but, on the contrary, causing a greater amount of suffering. Steaming, unless done with extreme care and caution, does the traveled for weeks in Normandy, harm, as when the warmth of the fermentation is gone, the animal is generally exposed a four wheeler heavier than a two-horseto an ordinarily colder atmosphere, etc. No treatment in my own practice was so effec-tual, and none brought speedier and more permanent relief than a powerful stimulant

The autumn of the year has come The labor of the examer's done; They who in spring neglect to sow, The joys of harvest must forego.

From morn till meen, from noon till night, The farmer works with will and might, To gather in from harvest fields The various preducts which they yield; And store them up for fature needs.

The wants of flocks and herds he heed That they in turn may him supply The farmer, in his lowly cot,

las joys which many a king has not

She gives to him whate'er he ask; If he but bends unto the task; And shows that he his part will do, She opes the door that leads theret Through countless labyrinths she'll go,-

But ever seeks the good of these Who in her truth and love repos

Oh: how can frail and feeble man Refuse to grasp his mother's hand Or think it a disgrace or ban

With hardened hand and sunburnt face He moves among the growing cor. Nor idly waits the dinner horn.

And a reward is sure to win, In ample stalk, and rounded bin, Of wheat and oats, and yellow corn

An honest pride he well may feel, Of every product in his field; And that by labor, toll and care,

And who's a better right than he The millions that he helps to feed

He's nothing but a farmer boy, And pleased with any childish toy There's nothing he can do or win— We've nought to care or fear from his

But, hark : methinks there comes a voice Be careful ere you make your ch For farmers' boys are waking now To claim their rights; and all shall bot

Their rights respect. Your hands extend And greet them as a brother man,

Or shoves the plane in honest toll, Or wields the hammer at the forge, Calls upon nature to disgorge, And unto them a living give, That they may eat, and drink, and live; Like honest men who tread the sod,

If man his daily bread to gain

That every sluggard we despise Your help to me ye must extend.

Methods of Preserving Butter.

In the discussions at the New York state fair, reported in the American Rural Home J. T. Hawley of Saline, stated a new process for preserving butter, and he also maintained that salt does not preserve butter. His idea was that salt out the cheesy matter and facilitated the separation of the buttermilk and that when the butter was fully deprived of these elements it preserved itself. Get out all matters which tend to produce putrefaction, and the butter becomes self-preservaslight variations we have made, applicable tive. For that reason not a putrefactive element either before or during the process of butter-making should be allowed to enter in or remain. He also upheld the idea of using a strong saturated brine, in place of duce the brine at the point before the pellicles of butter were gathered, repeating the washes of it, until all the cheesy matter and when they go right; to be at all times helpful, educating, stimulating—a terror to evil-doers and a praise to them that do well. and after the cheesy matter and buttermilk seemed to be cleared away by the former. the introduction of the latter still demonstrated their presence, because the brine was more detergent than water. The process met with general approval.

BREVITIES.

Hops in Vermont, last year, forty cents. This year eight to ten. Hop yards will be uprooted and next year hops will bear high

An English farmer gathered sixty-three heads, 3,044 kernels, of wheat, the product of one kernel dropped in his garden, and cultivated with care. The New England Farmer says: Keep

At the late New England fair, Vermonters took every premium and diploma, eighteen in all, in the class of merinos, seven out of hine on long wools and nine out of fifteen

own cuds, and is sick, cure them by good nursing and the "end" will take care of it-

in the class denominated middle wools. It is said that some New York fruit growers fill a barrel half full of potatoes or pumpkins and top out with pears, and ship market. It is hoped that the Argus will not regard our mention of the matter as as

attack on tammany. Mr Abial Codding, of Attleboro, showed at the Attleboro, Mass., fair, his ten-year-old grade Durham cow, which has given twentytwo quarts of rich milk per day for thirtee weeks in succession, and gave eighteen quarts the day before coming to the fair. One of her heifer calves gave at her first calving at two years old, fourteen quarts of milk per day, and another at two and one-half years

gave sixteen quarts per day. B. H. Campbell, who has studied the draft horse, advocates the Norman Percheron for three heavy men and a driver in a cart or carriage here, with one Norman horse, and never made less than seven miles an hour and often eight.

The cattle disease still continues its ravopplied to the throat outside, and tincture of opelia one ounce, gelseminm one-half ounce; over \$1,000,000. For the three months mix and place from thirty to forty drops ending October 16, over 500,000 cases were upon the roots of the tongue three times a reported in England and Wales, of which day. Plenty of pure air and general warmth Somersetshire had 83,000, Cheshire 50,000, and comfort make good nursing—not too Dorsetshire 48,000, Gloucestershire 44,000 much pampering and medication.—William Oxfordshire 39,000, Warwickshire 33,000 much pampering and medication.—William Oxfordshire 39,000, Warwickshire 33,00 Horn, M. D., V. S., in Country Gentleman. Norfolk 31,000, and Cumberland 23,000.